

Appl. No. 09/753,218
Amtd. Dated 06/30/04
Reply to Office Action of 03/30/2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) In a wireless network system comprising first and second sub-networks having respective first and second access points, and a wireless unit associated with first access point and having a current network protocol address valid for said first sub-network, a method for said wireless unit to obtain a new network protocol address valid for said second sub-network, comprising:

said wireless unit receiving a message having information, including a network protocol address of said second access point, from which said wireless unit can determine if said current network protocol address is valid for said second sub-network;

said wireless unit determining that said current network protocol address is not valid for said second sub-network from said information by determining if it has previously stored said network protocol address and either (i) determining that said current network protocol address is not valid for said second sub-network based on information associated with said previously stored network protocol address or (ii) determining that said current network protocol address is not valid for said second sub-network if said wireless unit has not previously stored said network protocol address;

said wireless unit associating with said second access point for communicating with said second sub-network;

said wireless unit sending a request for said new network protocol address to said second sub-network by way of said second access point; and

said wireless unit receiving said new network protocol address from said second sub-network by way of said second access point.

2. (Original) The method of claim 1, wherein said information comprises a network protocol address of said second access point.

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3. (Original) The method of claim 1, wherein said information comprises a subnet mask pertaining to said second sub-network.

4. (Original) The method of claim 1, further comprising said wireless unit sending a request to release said current network protocol address to said first sub-network.

5. (Cancelled).

6. (Cancelled).

7. (Currently Amended) A wireless unit for communicating with a wired backbone network having first and second sub-networks by way of respective first and second access points, comprising:

a wireless transceiver to communicate with said first and second access points via a wireless medium;

a memory to communicate current network protocol address valid for said first sub-network; and

- a logic circuit to receive a first-message from said first-second access point by way of said wireless receiver, wherein said first-message includes information from which said logic circuit can determine if said current network protocol address is valid for said second sub-network, said logic circuit is adapted to also capable of transmitting a request for a new network protocol address valid for said second sub-network if said logic circuit determines if said current network protocol address is not valid for said second sub-network and determine if said new network protocol address has been previously stored in said memory, and transmitting said request for said new network protocol address if said new network protocol address has not been previously stored in said memory.

8. (Original) The wireless unit of claim 7, wherein said information comprises a network protocol address of said second access point.

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9. (Original) The wireless unit of claim 7, wherein said information comprises a subnet mask pertaining to said second sub-network.

10. (Original) The wireless unit of claim 7, wherein said logic circuit is capable of transmitting a request to release said current network protocol address.

11. (Original) The wireless unit of claim 7, wherein said logic circuit is capable of determining if said new network protocol address has been previously stored in said memory, and determining whether said new network protocol address is valid based on information stored in said memory that is associated with said previously stored new network protocol address.

12. (Cancelled).

13. (Currently Amended) An access point, comprising a logic circuit for periodically transmitting a message to one or more wireless units without any predetermination by the access point that a wireless unit has moved to a different sub-network, wherein said message includes information from which said one or more wireless units can determine if a current network protocol address is valid on the sub-network which said access point is on.

14. (Currently Amended) The access point of claim 13, wherein said information comprises a network protocol address for said second access point.

15. (Currently Amended) The access point of claim 13, wherein said information comprises a subnet mask of said second sub-network.

16. (Currently Amended) The access point of claim ~~13~~¹⁵, wherein said ~~message information further comprises a subnet mask of said second sub-network-includes information which said one or more wireless units can make roaming decision based on.~~

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17. (Currently Amended) A wireless network system, comprising:
a wired backbone network comprising first and second sub-networks data coupled together by way of a network device;
a first access point on said first sub-network; and
a second access point on said second sub-network, comprising a logic circuit for transmitting a message to one or more wireless units, wherein said message includes information from which a wireless unit can determine if a current network protocol address assigned to said wireless unit is valid for said second sub-network, said information includes a network protocol address for said second access point and a subnet mask of said second sub-network.
18. (Currently Amended) The wireless network system of claim 17, wherein said information further comprises a network protocol address for said access point Media Access Control (MAC) address of said second access point.
19. (Original) The wireless network system of claim 17, wherein said information comprises a subnet mask of said sub-network.
20. (Original) The wireless network system of claim 17, wherein said message further includes information which said one or more wireless units can make roaming decision based on.
21. (Cancelled).
22. (Cancelled).
23. (Cancelled).
24. (Cancelled).